

ZOOLOGY.—*New species of polychaete worms of the family Polynoidae from the east coast of North America.*¹ MARIAN H. PETTIBONE, University of New Hampshire.

The new species of Polynoidae herein described were collected in part by the writer; some were present in the unworked collections in the United States National Museum where the types are deposited.

Family POLYNOIDAE

Genus *Austrolaenilla* Bergström, 1916; *char. emend.*

Elytra 15–16 pairs (15 in type species, *A. antarctica* Bergström; 16 in *A. mollis* (Sars)). Notosetae stouter than neurosetae, of the fundamental *Harmothoe* type. Neurosetae with tips slender, not capillary, entire or with secondary tooth, with filamentous hairs on distal ends (bearded or hirsute tips).

Laenilla? *mollis* Sars, 1872, is herein referred to *Austrolaenilla*. It has been referred to *Harmothoe* and *Antinoë*.

Austrolaenilla lanelleae, n. sp.

Fig. 1, *a-f*

The species is based on three somewhat incomplete specimens which were found in the material collected by the U.S. Fish Commission from off Martha's Vineyard, Mass.; they were found along with numerous specimens of the polynoid, *Harmothoe acanellae* (Verrill) and which they superficially resemble; the latter is known to be associated with corals. The species is named for LaNelle Peterson, museum aide at the U.S. National Museum.

Measurements.—Length 14 to 23 mm, greatest width including setae 5 to 7.5 mm, width excluding setae 3 to 6.75 mm. Segments 40, 41.

Description.—Body nearly linear, tapering gradually anteriorly and more so posteriorly, flattened dorsoventrally. Elytra missing; elytophores 15 pairs. Prostomium bilobed, wider than long, with deep anteromedian notch and distinct cephalic peaks (Fig. 1, *a*). Four eyes purple, large, anterior pair larger than posterior pair, lateral in position, in region of greatest prostomial width. Median antenna with bulbous ceratophore; style missing. Lateral antennae with short ceratophores inserted ventrally on prostomium;

styles short, subulate, tapering to slender tips. Palps missing. Tentacular segment with elongated basal lobes each with a single seta. Tentacular, dorsal and anal cirri missing. Cirrophores of dorsal cirri bulbous basally. Ventral cirri shorter than neuropodia, subulate (Fig. 1, *b*). Segmental papillae begin on segment 6, short, cylindrical, extending upward between the bases of successive neuropodia.

Parapodia biramous, rather long—parapodia and setae about as long as body width; notopodium a short rounded lobe on the antero-dorsal face of the neuropodium, with a digitiform acicular lobe; neuropodium bluntly conical (Fig. 1, *b*). Notosetae golden-yellow, numerous, forming a spreading bundle, stout (22.5 to 47.5 μ in diameter basally), curved, tapering gradually, with close-set spinous rows, with very short bare pointed tips or tips worn off bluntly (Fig. 1, *c*). Neurosetae golden-yellow, with long stem region (15 to 25 μ in diameter basally), with enlarged long distal spinous regions (20 to 30 μ in greatest diameter in basal part), spinous region consisting of 17 to 35 or so spinous rows, with tip slightly hooked, with slender secondary tooth (may be broken off or hidden by bushy hairs); the free end of the spinous rows taper to slender hairy tips, the distal row extending about to the setal tip (Fig. 1, *d, f*); the lower neurosetae with shorter spinous regions, with secondary tooth very slender or absent; the upper neurosetae more slender, with the longest spinous regions and longer hairy tips (Fig. 1, *d, e*).

Remarks.—*A. lanelleae* superficially resembles *Harmothoe acanellae* (Verrill), with which it was found, in regard to the general shape and large eyes. It differs by having more numerous notosetae (4–10 in *H. acanellae*), fewer number of segments (50–80 in *H. acanellae*), and the character of the noto- and neurosetae. It differs from *A. antarctica* Bergström by having the neurosetae with a secondary tooth and shorter bushy hairs. It differs from *A. mollis* (Sars) by having 15 pairs of elytra (16 in *A. mollis*) and neurosetae with shorter hairs on the hirsute or bearded tips.

Locality.—Types (U.S.N.M. nos. 26460 and 26461): Off Martha's Vineyard, Mass., 39° 57' N., 69° 16' W., 458 fathoms, yellow mud, sand, *Fish Hawk* station 1029, 1881.

¹ This study was aided by a grant from the National Science Foundation (NSF-G526).

Genus *Gattyana* McIntosh, 1897

Gattyana nutti, n. sp.

Fig. 2. *a-f*

The species is based on eight specimens—one collected by D. C. Nutt on the *Blue Dolphin* Expedition of 1949 in the Strait of Belle Isle, Labrador, the others collected by the U.S. Bureau of Fisheries from off Newfoundland to off Cape Cod and reserved for study by A. E. Verrill. It is a dredged form found on bottoms of coral, sand, and pebbles. The species is named for David C. Nutt, commander of the *Blue Dolphin* Expeditions to Labrador.

Measurements.—Length 15 to 16.5 mm, greatest width including setae 4.5 to 4.8 mm, width excluding setae 3.7 to 3.8 mm. Segments 35.

Description.—Body nearly linear, tapering slightly anteriorly and posteriorly, oval in cross section. Body without color. Elytra 15 pairs, oval, imbricated, cover the dorsum, tannish, furnished with long fringe of papillae on lateral and posterior borders as well as on surface, with large, bluntly conical, translucent, amber-colored macro-tubercles covering most of posterior half—macro-tubercles up to 416μ in length; some intermediate-

sized tubercles may have the tips flattened, bifid, or faintly quadrifid; microtubercles more anteriorly on elytra, bluntly conical, mostly with tips bifid, some quadrifid (Fig. 2, *c*).

Prostomium bilobed, wider than long, with deep anteromedian notch, with distinct blunt cephalic peaks (Fig. 2, *a*). Four eyes moderate in size, anterior pair slightly larger than posterior pair, anteroventral in position—not visible dorsally. Median antenna with large bulbous ceratophore, with brown pigment laterally; style nearly as long as the palps, dusky basally, with subterminal enlargement and filamentous tip, with numerous long papillae. Lateral antennae about same length as the prostomial width, short ceratophores inserted ventrally on prostomium; styles dusky, papillate. Palps up to twice the prostomial width, dusky, with short slender tips. Tentacular segment with basal lobes elongated, each with a single seta; two pairs tentacular cirri similar to median antenna, the upper pair about as long as the palps, the ventral pair shorter. Occipital fold posterior to prostomium slightly developed. Dorsal cirri and pair of anal cirri slightly longer than the neurosetae, similar to median antenna, densely papillate. Ventral cirri

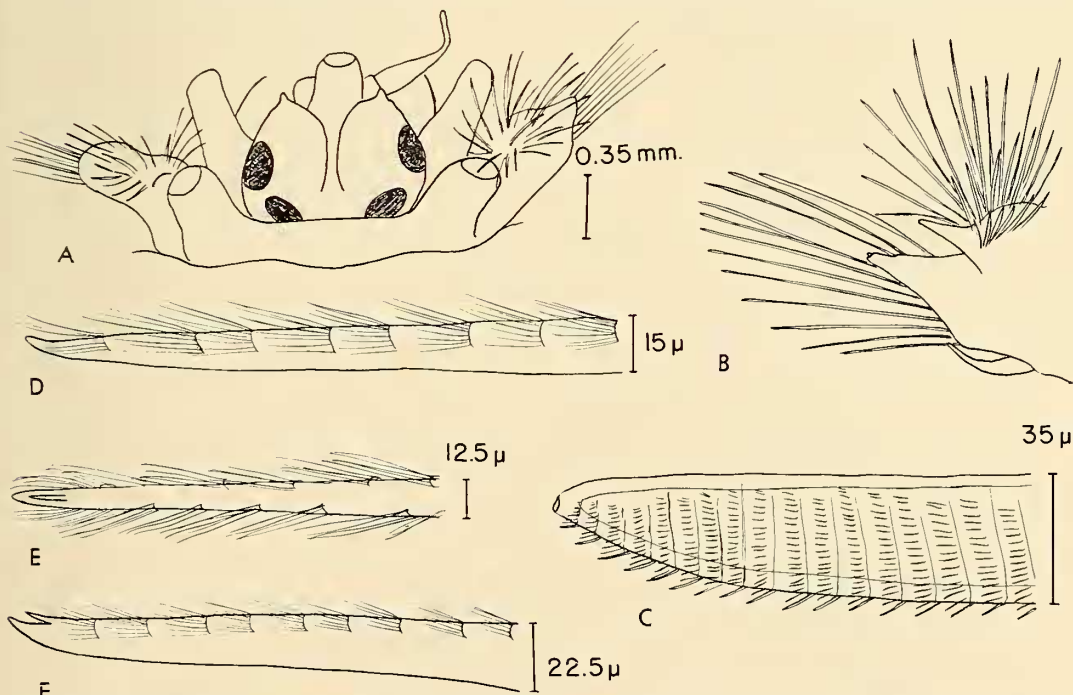


FIG. 1.—*Austrolaenilla lanelleae*, n. sp.: *a*, Dorsal view prostomium and first two segments (elytra, tentacular cirri, and styles of two antennae missing); *b*, fifteenth right parapodium, anterior view; *c*, tip of notoseta; *d*, tip of upper neuroseta; *e*, same, frontal view; *f*, tip of middle neuroseta.

shorter than neuropodia, subulate (Fig. 2, *b*). Segmental papillae begin on segment 6, continuing posteriorly; they become elongated, extending dorsally between the basal parts of the neuropodia.

Parapodia biramous; notopodium a rounded lobe on the anterodorsal face of the neuropodium, with a projecting acicular lobe; neuropodium with a bluntly conical presetal acicular lobe (Fig. 2, *b*). Notoetae light yellow, numerous, forming a bushy bundle, the lower ones extending almost as far distally as the neurosetae; notoetae 7.5 to 15 μ in diameter basally, the upper row stouter, more strongly curved, tapering to blunt tips (Fig. 2, *d*), the rest are more slender, tapering gradually to slender tips (Fig. 2, *e*). Neurosetae golden yellow, 12.5 to 22.5 μ in diameter basally, with enlarged distal spinous regions (17.5 to 30 μ in greatest diameter at basal part of spinous region), with 4 to 17 or so spinous rows and bare hooked tips (spinous region as long as or slightly

longer than the bare hooked tips; fig. 2, *f*); the supraacicular neurosetae have longer spinous regions and more slender tips.

Remarks.—*G. nutti* resembles the well-known *Gattyana cirrosa* (Pallas) in most regards; it differs in the character of the elytral macro-tubercles.

Locality.—Type (U.S.N.M. no. 23765): Strait of Belle Isle, off Labrador, 51° 41' N., 56° 20' W., 25 fms., coral bottom, 1 July 1949, *Blue Dolphin* Expedition; paratypes (U.S.N.M. no. 6344): off Cape Cod, 42° 09' N., 70° 13' W., 26 fms., fine brown sand, pebbles, U.S.F.C. 1879, Loc. 330. Also south of Newfoundland, 45° 29' N., 55° 24' W., 67 fms., coral bottom, *Albatross* station 2466, 1885; off Nova Scotia, Chebucto Head, entrance of Halifax Harbor, 25 fathoms, fine sand, U.S.F.C. 1878, Loc. 216; Gulf of Maine, N.W. Eastern Point Light, 35 fathoms, fine sand and few pebbles, U.S.F.C. 1878, Loc. 216.

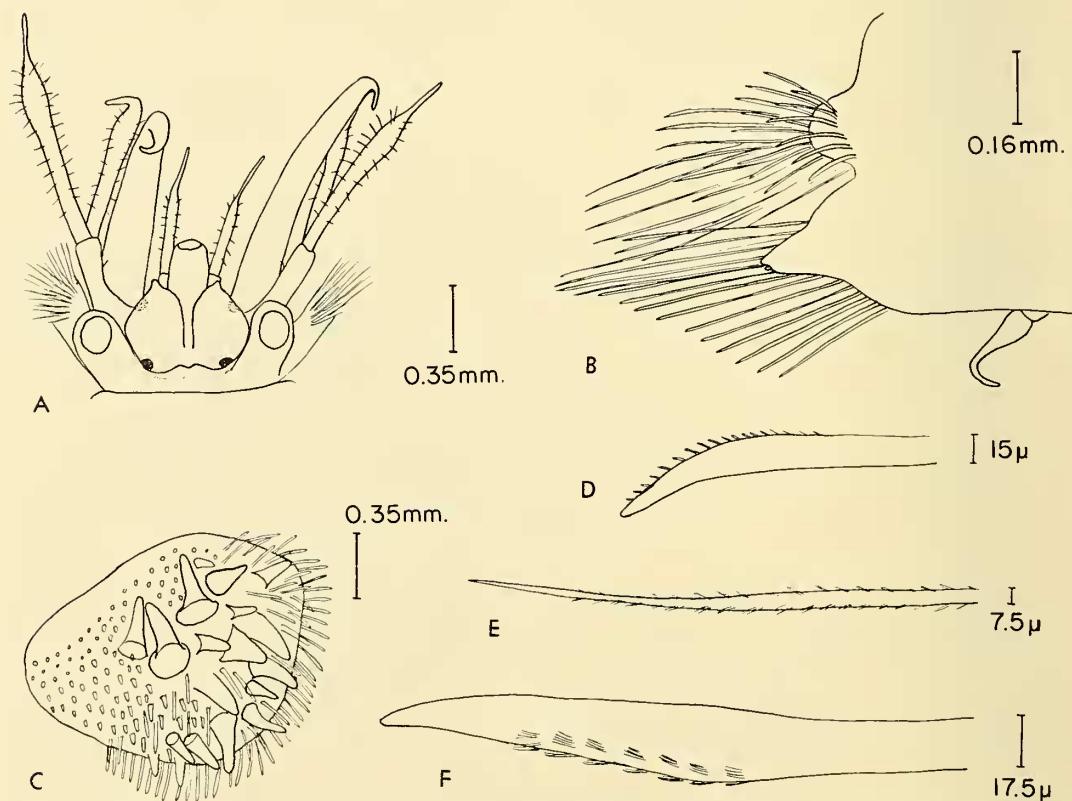


FIG. 2.—*Gattyana nutti*, n. sp.: *a*, Dorsal view prostomium and first two segments (elytra removed, style of median antenna missing); *b*, middle right parapodium, anterior view; *c*, middle right elytron; *d*, upper notoseta; *e*, tip of lower notoseta; *f*, middle neuroseta.

Genus *Harmothoe* Kinberg, 1855, *sensu* Bergström, 1916

Harmothoe dearborni, n. sp.

Fig. 3, a-i

The species is represented by a single specimen which was found attached to floating gulfweeds, including *Sargassum*, in Vineyard Sound, Mass. Its color was similar to that of the weed. It is

named for John Dearborn, who collected the specimen.

Measurements.—Length 12.5 mm, greatest width including setae 3.75 mm, width excluding setae 2.7 mm. Segments 35.

Description.—Body widest about anterior third, tapering slightly anteriorly and more so posteriorly, oval in cross section. Dorsally body

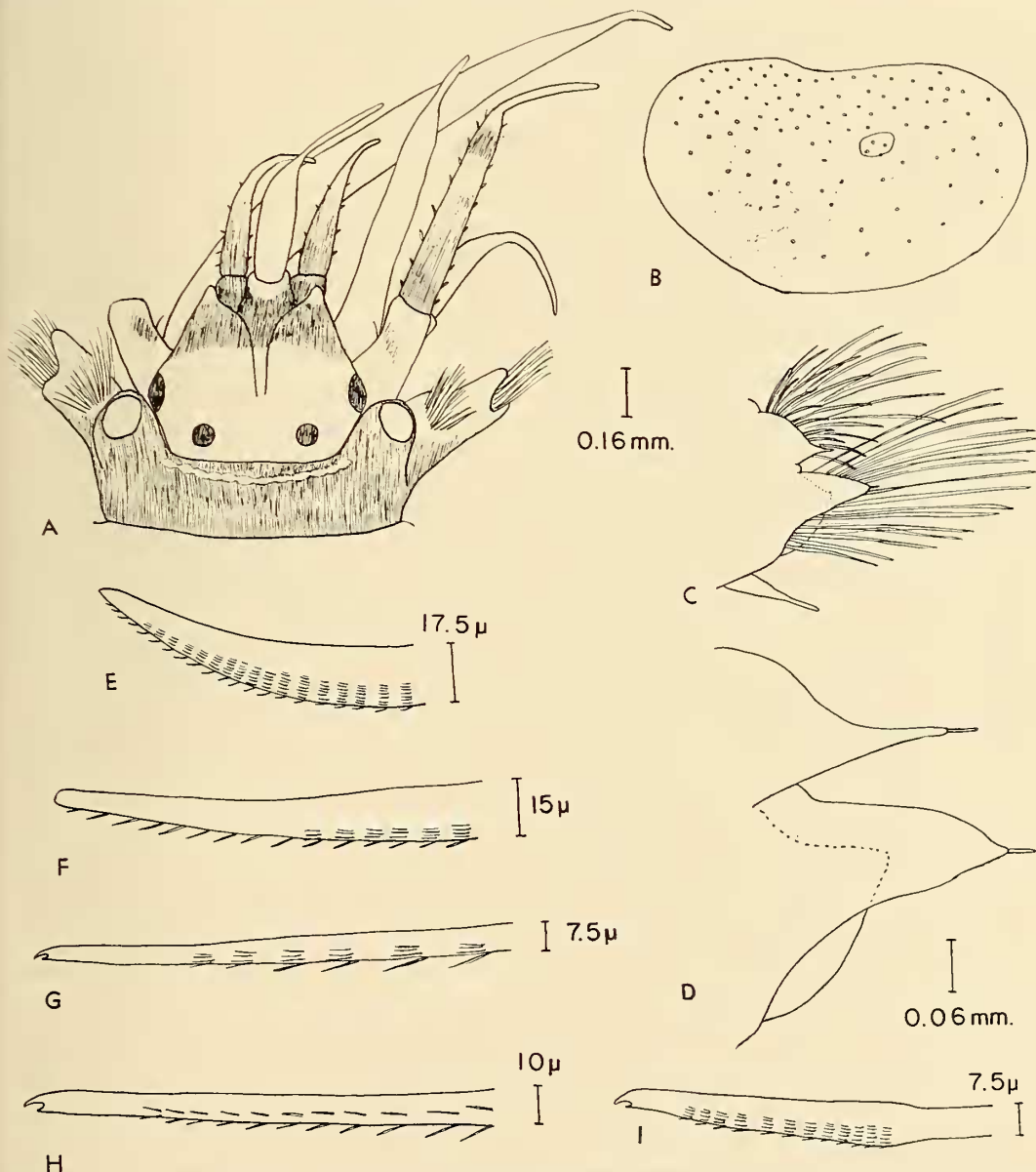


FIG. 3.—*Harmothoe dearborni*, n. sp.: a, Dorsal view prostomium and first two segments (elytra removed, left tentacular cirri missing); b, middle right elytron; c, fifteenth left parapodium, anterior view; d, portion of same, without the setae; e, tip of upper notoseta; f, tip of lower notoseta; g, tip of upper neuroseta; h, tip of middle neuroseta; i, lower neuroseta.

rusty-red (in life) or reddish-brown (in alcohol), with a narrow, somewhat beaded, colorless transverse band on the anterior part of each segment between the dorsal tubercles and elytophores (Fig. 3, *a*); also a colorless intersegmental band—thus two white bands per segment. Ventral surface dusky, more so anteriorly and especially dark in the region of the mouth. Elytra (Fig. 3, *b*) 15 pairs, oval, overlapping, cover the dorsum; they are thin, transparent, without fringe of papillae; elytral surface smooth except for delicate scattered short papillae and scattered low microtubercles which are mostly confined to the anterior half; elytra rusty-red with white flecks in the region of the elytophores (in life).

Prostomium bilobed, wider than long, with deep anteromedian notch, with distinct cephalic peaks; anterior third with brown pigment (Fig. 3, *a*). Four eyes rather large, faint, anterior pair about twice as large as posterior pair, lateral in position, in region of greatest prostomial width. Median antenna with short cylindrical brown ceratophore; style about equal in length to prostomial width, cylindrical basally, distal half consisting of slender tip (regenerating?). Lateral antennae with short brown ceratophores inserted ventral to median antenna; styles slightly shorter than prostomial length, subulate, with wider dark basal part and slender tip, with short scattered papillae. Left palp about three times the prostomial length, right one about half as long, probably regenerating; they are smooth, tapering gradually to slender tips. Tentacular segment with elongated, irregularly pigmented basal lobes each with a single seta. Upper pair tentacular cirri longer than the lower pair, slightly longer than prostomial width, darkly pigmented basally and a darker subterminal band, with long slender tip and short papillae. Dorsal cirri with cirrophores bulbous basally, pigmented; styles taper gradually to long slender tips, pigmented on basal third and darker subterminal ring; they extend slightly beyond the neurosetae, the more posterior ones are longer, more slender. Ventral cirri shorter than neuropodia, subulate (Fig. 3, *c*). Anal cirri (left one missing) long, with long slender tip. Segmental papillae begin on segment 6, continuing posteriorly; they are short, cylindrical, extending dorsally between successive neuropodia. The single specimen was massed with eggs.

Parapodia rather long (setae and parapodia about as long as body width); notopodium a rounded lobe tapering to a slender acicular lobe;

neuropodium diagonally truncate posteriorly, with a conical acicular lobe anteriorly (Fig. 3, *c*, *d*). Notosetae numerous, forming a spreading bundle, shorter and slightly stouter than neurosetae, 12.5 to 20 μ in diameter basally, tapering gradually to short bare blunt to pointed tips, with numerous short spinous rows extending almost to tip; upper notosetae shorter, more arched, with pointed tips (Fig. 3, *e*); rest longer with bluntly worn tips (Fig. 3, *f*). Neurosetae with long stem region, 7.5 to 10 μ in diameter basally, with enlarged spinous region (12.5 to 15 μ in greatest diameter in basal part), tapering to slender bare hooked tips, all with secondary tooth close to tip (Fig. 3, *h*); upper ones long, more slender (Fig. 3, *g*), lower ones with shorter spinous regions (Fig. 3, *i*).

Locality.—Type (U.S.N.M. no. 26457): Vineyard Sound, Mass., on floating gulfweed, as *Sargassum* and others, September 3, 1953, collected by John Dearborn.

Harmothoe macginitiei, n. sp.

Fig. 4, *a-i*

The species is based on a single specimen found at low tide at Hadley Harbor, Naushon Island in the Woods Hole area, Mass. It was dug under water and found in the sievings of the muddy sand. The species is named for Prof. George MacGinitie.

Measurements.—Length 20 mm, greatest width including setae 8.5 mm, width excluding setae 5.25 mm. Segments 36.

Description.—Body widest in middle two-thirds, tapering gradually anteriorly and posteriorly, greatly flattened dorsoventrally. Body without color. Elytra 15 pairs, large, oval, overlapping, covering the dorsum, tannish, with numerous amber-colored tubercles which gradually get larger posteriorly on each elytron, none of which get to the size of macrotubercles (Fig. 4, *b*; may get up to 144 μ in height); tubercles may be pointed, conical and curved, some bifid, and some quadrifid or somewhat irregular; the larger tubercles are in the center of an irregular circular area which is somewhat scalloped around the edge, with papillae emerging from the inner part of the scallop (Fig. 4, *c*, *d*); elytra with a fringe of papillae on the lateral and posterior borders as well as on the elytral surface; tubercles and papillae covered with a good deal of debris.

Prostomium bilobed, wider than long, with a

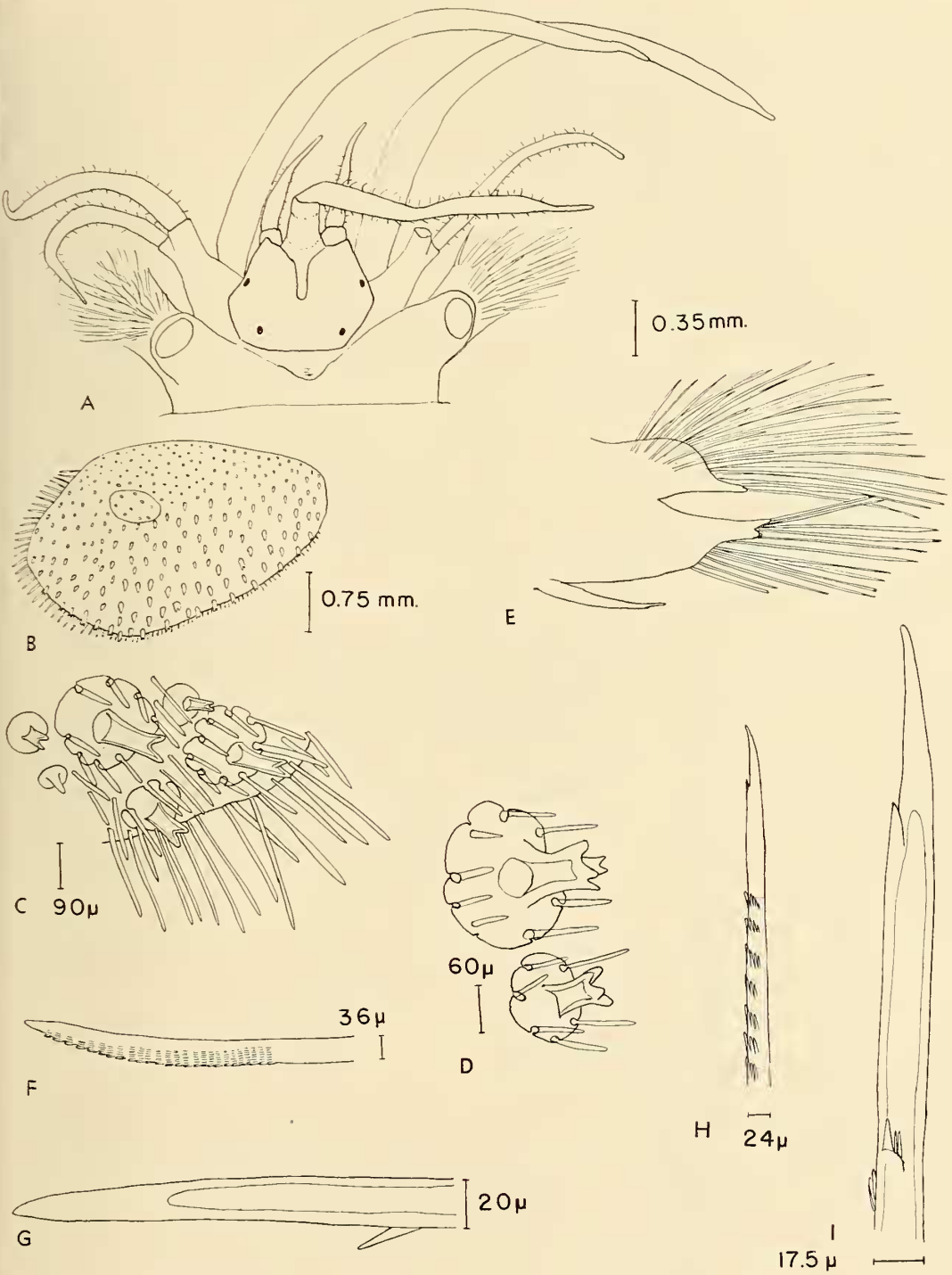


FIG. 4.—*Harmothoe macginitiei*, n. sp.: a, Dorsal view prostomium and first two segments (elytra removed, upper right tentacular cirrus missing); b, middle right elytron; c, portion of elytral border showing tubercles, scalloped circular areas and papillae; d, same, showing quatrifid elytral tubercles; e, middle left parapodium, anterior view; f, upper notoseta; g, tip of middle notoseta; h, tip of neuroseta; i, same, more enlarged.

deep anteromedian notch, with rather indistinct triangular cephalic peaks (Fig. 4, *a*). Four eyes small, anterior pair slightly larger than posterior pair, lateral in position, just anterior to greatest prostomial width. Median antenna with large cylindrical ceratophore; style almost twice the prostomial width, tapering gradually, with slender tip and long papillae. Lateral antennae with short ceratophores inserted ventral to median antenna; styles subulate, papillate, about the length of the prostomium. Palps more than three times the prostomial width, smooth, tapering gradually to slender tips. Tentacular segment with large tentacular basal lobes, without setae; tentacular cirri subequal in length, similar to median antenna; a distinct nuchal fold posterior to prostomium (folded back in Fig. 4, *a*). Dorsal cirri extending slightly beyond the tips of the neurosetae, similar to median antenna, with long slender tip and numerous papillae. Ventral cirri short, subulate, with slender tips (Fig. 4, *e*). Anal cirri missing. Segmental papillae begin on segment 6, continuing posteriorly; they emerge from an inflated rounded lobe ventral to the neuropodia, becoming elongate cylindrical and turned dorsally between successive neuropodia.

Parapodia long (setae and parapodia longer than body width), biramous; notopodium a rounded lobe with a digitiform acicular lobe; neuropodium conical, with a supraacicular slender digitiform lobe (Fig. 4, *e*). Setae golden yellow. Notosetae numerous, forming a very thick bushy bundle, the lower ones about as long as the neurosetae, slightly curved, of about the same diameter as the neurosetae (15 to 36 μ in diameter basally); upper notosetae stouter, shorter, more arched, with short bare pointed tips (Fig. 4, *f*); others with longer bare pointed tips—may be very long (Fig. 4, *g*), with traverse spinous rows in which the spines are rather long and prominent (longer than in the typical *Harmothoe inbricata* type); they are covered with a good deal of debris. Neurosetae with long stem region (20 to 27.5 μ in diameter basally), with enlarged spinous region (27.5 to 42.5 μ in greatest diameter in basal part of spinous region), tapering gradually to long bare slightly hooked tip, with secondary tooth which is large, straight, and rather far removed from the tip (Fig. 4, *h*, *i*; may be lacking in a few lower neurosetae).

Remarks.—*H. macginitiei* resembles *H. areolata* Grube (known from English Channel, Mediterranean, Adriatic) and *H. aculeata* Andrews (known from North and South Carolina, Florida).

It differs in that *H. macginitiei* has the elytral tubercles becoming gradually larger posteriorly, none attaining the size of macrotubercles; the tubercles are conical, some bifid, some quadrifid or irregular, the larger ones in the center of an irregular circular area with papillae. In *H. areolata*, the elytra have several rows of conical pointed macrotubercles (none bifid) arising from large polygonal areas, without papillae; in *H. aculeata*, the elytra have 1 to 2 rows of conical macrotubercles (may be bifid) arising from irregular circular areas near the border of which are chitinous microtubercles as well as some papillae. The cephalic peaks are poorly developed in *H. macginitiei*, well developed in *H. areolata* and *H. aculeata*. None of the dorsal cirri were inflated in *H. macginitiei* as they sometimes are in the other two.

Locality.—Type (U.S.N.M. no. 26458): Hadley Harbor, Naushon Island, in the Woods Hole area, Mass., low water, muddy-sand, September 2, 1952, M. Pettibone, collector.

Genus *Hartmania*², n. gen.

Prostomium harmothoid, with distinct cephalic peaks and lateral antennae inserted ventral to the median antenna. Elytra 15 pairs, on segments 2, 4, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 26, 29, 32. Elytra large, cover the dorsum. Segments less than 40. Both noto- and neurosetae subequal in diameter, ending in slender pointed to capillary tips, not hooked.

Hartmania resembles *Enipo* and *Nemidia* as defined by Malmgren, 1865; it differs in having less than 40 segments, with elytra covering the dorsum. It differs from *Arctobia* Annenkova, 1937, in having all the neurosetae with slender sharp tips, none with hooked bifid ones.

Hartmania moorei, n. sp.

Fig. 5, *a-e*

Five specimens were found in the burrows of large specimens of *Nereis virens* in the sandy-mud of Little Harbor, Newcastle, New Hampshire. They are small (up to 15 mm), rather fast moving, and easily escape notice. The species shows some of the adaptations of a commensal polynoid, as small eyes and smooth elytra; it lacks the melanistic body pigmentation as is found in some. Two specimens were found among the material dredged in the region of Cape Cod, Mass., by the U. S. Fish Commission and reserved for study by

² Named for Dr. Olga Hartman, who has contributed so much to the study of the polychaetes.

A. E. Verrill. The species is named for Dr. George M. Moore, who collected the majority of the specimens by persistent digging.

Measurements.—Length 8.7 to 15 mm, greatest width excluding setae 2.5 to 3.6 mm, width including setae 3.7 to 5.2 mm. Segments 35–37.

Description.—Body of nearly uniform width in middle third, tapering slightly anteriorly and posteriorly, flattened dorsoventrally. Body without color. Elytra 15 pairs, rather large, imbricated, cover the dorsum, oval to subreniform in shape, smooth, lacking papillae and tubercles, with pale to light rusty-brown, crescent-shaped colored areas on medial halves of elytra (Fig. 5, *a*; in life and in alcohol).

Prostomium bilobed, wider than long, with a deep anteromedian notch, with distinct blunt cephalic peaks (Fig. 5, *a*). Four eyes small, anterior pair lateral in position, just anterior to greatest prostomial width. Median antenna with bulbous ceratophore; style about equal in length to prostomial width, tapering to slender, slightly bulbous tip and with short scattered papillae. Lateral antennae inserted ventral to median antenna on prostomium; short ceratophores hidden by the bulbous ceratophore of median antenna; styles short—less than half the length of the median antenna, tapering to slightly bulbous tips. Palps up to two and a half times the length of the prostomium, with numerous

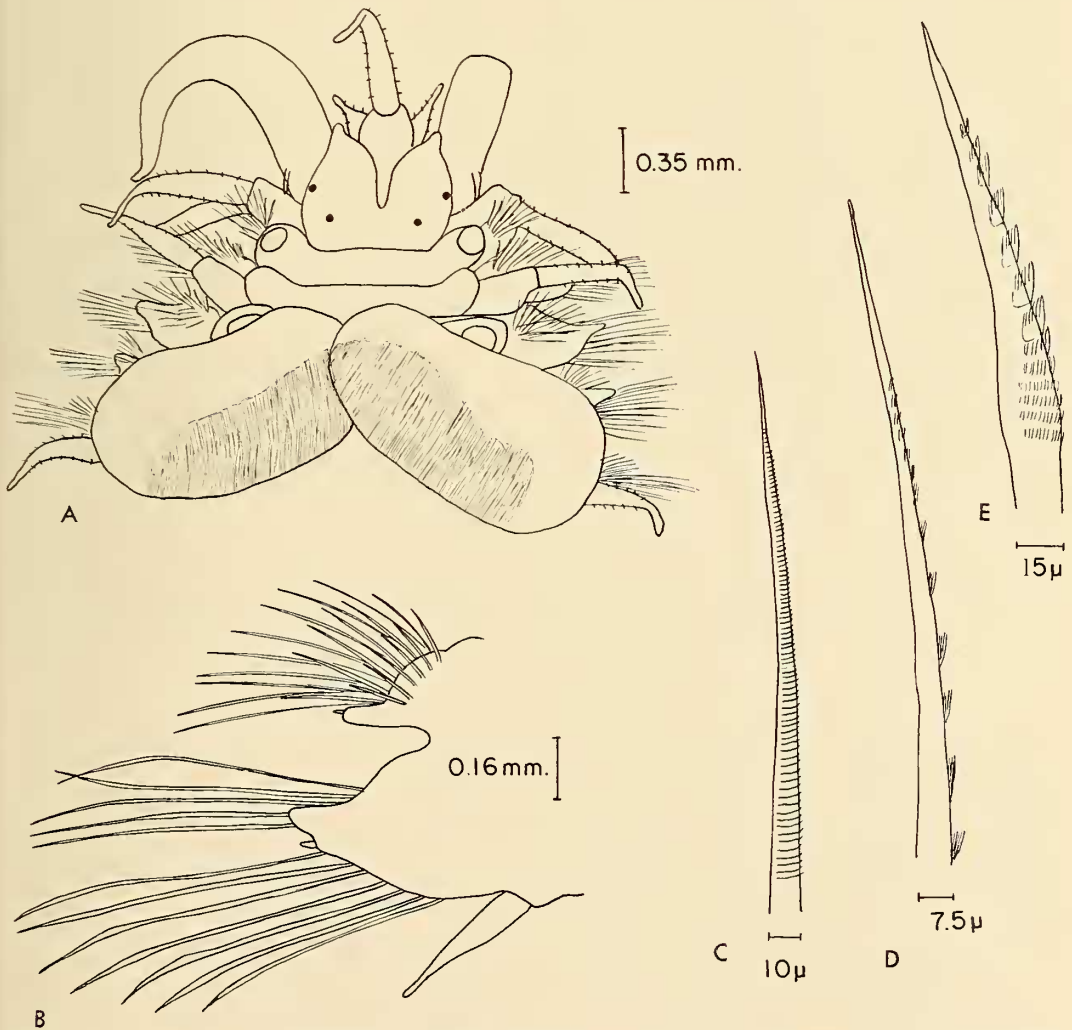


FIG. 5.—*Hartmania moorei*, n. sp.: *a*, Dorsal view prostomium and first 6 segments (first two pairs elytra removed); *b*, thirteenth right parapodium, anterior view; *c*, notoseta; *d*, tip of supraacicular neuroseta; *e*, subacicular neuroseta.

close-set short claviform papillae. Tentacular segment with basal lobes elongated, each with 2 or 3 dark setae; two pairs of subequal tentacular cirri similar to median antenna. Dorsal cirri with bulbous cirrophores; styles extend to about the tips of the neurosetae, tapering gradually distally to slender slightly bulbous tips, with short scattered claviform papillae. Ventral cirri shorter than neuropodia, subulate, with slightly bulbous tips and few short globular papillae (Fig. 5, *b*). Pair of long anal cirri—the longest appendages of the body. Segmental papillae short, globular, inconspicuous, begin on segment 6, continuing posteriorly.

Parapodia biramous, long, slender—parapodia including setae longer than body width; notopodium a short rounded lobe with projecting finger-like acicular lobe; neuropodium conical, the apex forming a short supraacicular lobe (Fig. 5, *b*). Both notosetae and neurosetae delicate, transparent, iridescent. Notosetae form a spreading bundle of 5 or 6 rows of graded lengths, the upper row the shortest, the longest lower row extending about one-half the length of the neurosetae; they are widest basally (10 to 12.5 μ in diameter), tapering gradually to short capillary tips, appearing smooth but with numerous close-set fine spinous rows as seen under the highest magnification (Fig. 5, *c*). Few notosetae of tentacular segment rather stout (20 μ in diameter), lacking slender tips; upper notosetae of second or buccal segment curved, without slender tips. Neurosetae with long shaft of uniform width (10 to 15 μ in

diameter basally), with enlarged distal spinous regions (15 to 20 μ in greatest diameter on basal part of spinous regions), gently curved, ending in short slender tips (not capillary); supraacicular neurosetae with longer spinous regions and longer more slender tips (Fig. 5, *d*); more ventral neurosetae with shorter spinous regions (Fig. 5, *e*). Two specimens (collected November 8, 1954, New Hampshire) were filled with eggs. In life, the red ventral nerve cord and cerebral ganglion in the prostomium show conspicuously through the delicate transparent tissues of the body.

Remarks.—The setal, parapodial and prostomial shapes resemble those figured by Malmgren (1865, pl. 13, fig. 22) for *Nemidia torelli*. It differs by having eyes present, fewer number of segments, and more numerous notosetae.

Locality.—Types (U.S.N.M. nos. 26462 and 26463): Little Harbor, Newcastle, N. H., in sandy-mud burrows associated with *Nereis virens*, July 4, 1953 (1 specimen, M. Pettibone, collector); November 11, 1954 (4 specimens, G. M. Moore, collector). Also mouth of Cape Cod Bay, Mass., near Race Point Light, gray mud, 26 fathoms, 1879, Loc. 296; near Cuttyhunk Light, sand and mud, 17½ fathoms, 1880, Loc. 860—both collected by U.S. Fish Commission.

REFERENCE

- MALMGREN, A. J. *Nordiska Hafs-Annulater*. Förh. Öfv. Kongl. Vet. Akad. Stockholm, nos. 1, 2, 5: 51–110, 181–192. 355–410. pls. 8–15, 18–29. 1865.

MAMMALOGY.—*Descriptions of pocket gophers (Thomomys bottae) from north-eastern Arizona.* DONALD F. HOFFMEISTER, Museum of Natural History, University of Illinois, Urbana, Ill. (Communicated by David H. Johnson.)

(Received February 11, 1955)

Pocket gophers of the species *Thomomys bottae* have recently been collected in certain parts of Arizona from which they were poorly known before. This new material, together with previously collected material, indicates the need for a re-evaluation of some kinds of gophers in northeastern Arizona. It seems desirable to recognize one new subspecies and redescribe another.

Thomomys bottae rufidulus, n. subsp.

Type.—Adult male, no. 7344, Univ. Illinois Mus. Nat. Hist., from 2 miles east of Joseph

City, Navajo County, Ariz.; collected January 1, 1953, by Donald F. Hoffmeister, original no. 1965.

Range.—Along parts of the Little Colorado and Puerco rivers in Arizona and New Mexico; probably between Winslow, Ariz., and Gallup, N. Mex.

Diagnosis.—A race of *Thomomys bottae* characterized by a reddish color intermixed with considerable black and by small size. Color in summer: back (*a*) Clay-Color or Cinnamon approaching Cinnamon-Buff (capitalized color terms from